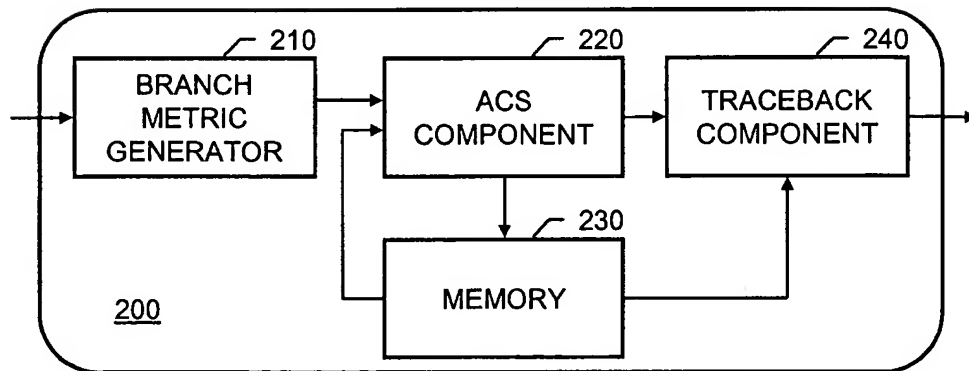
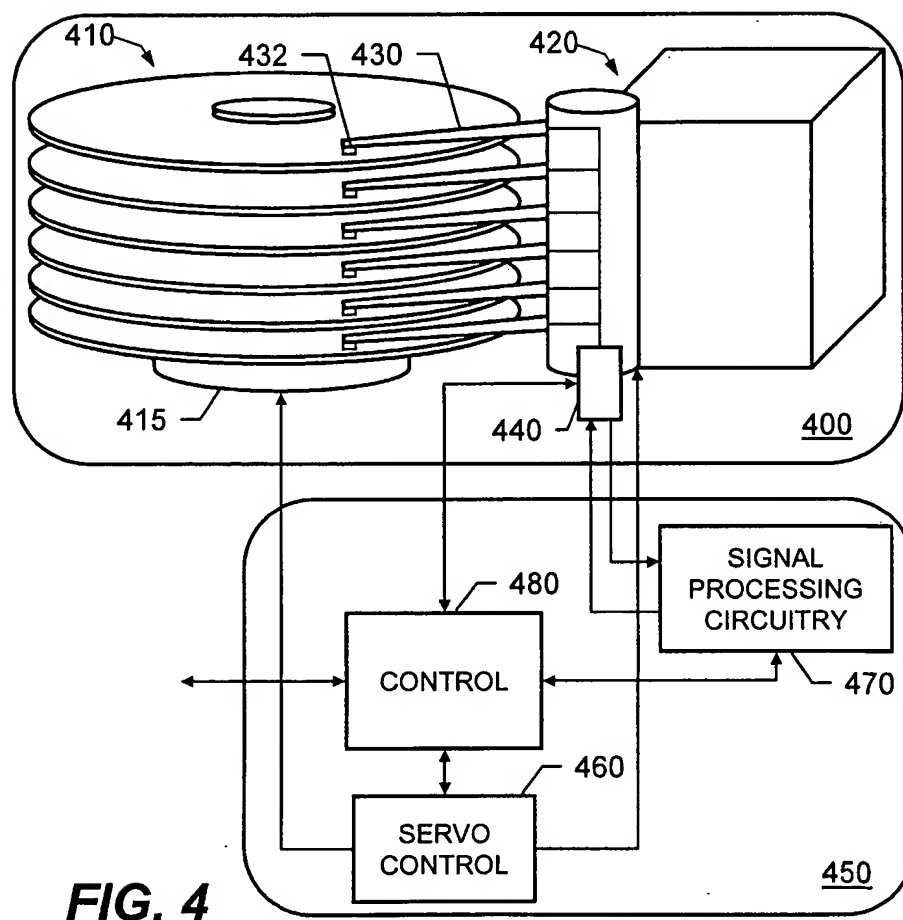
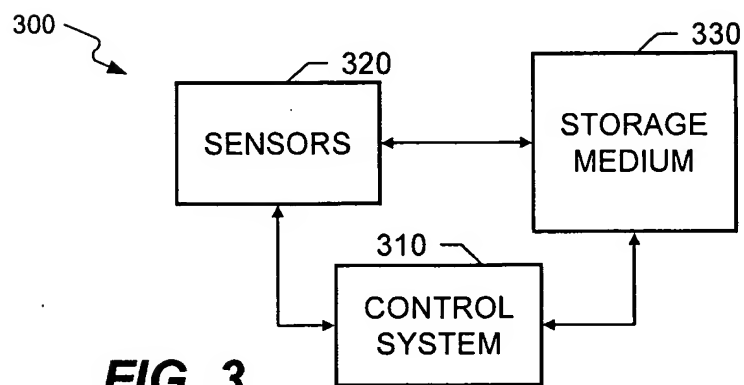
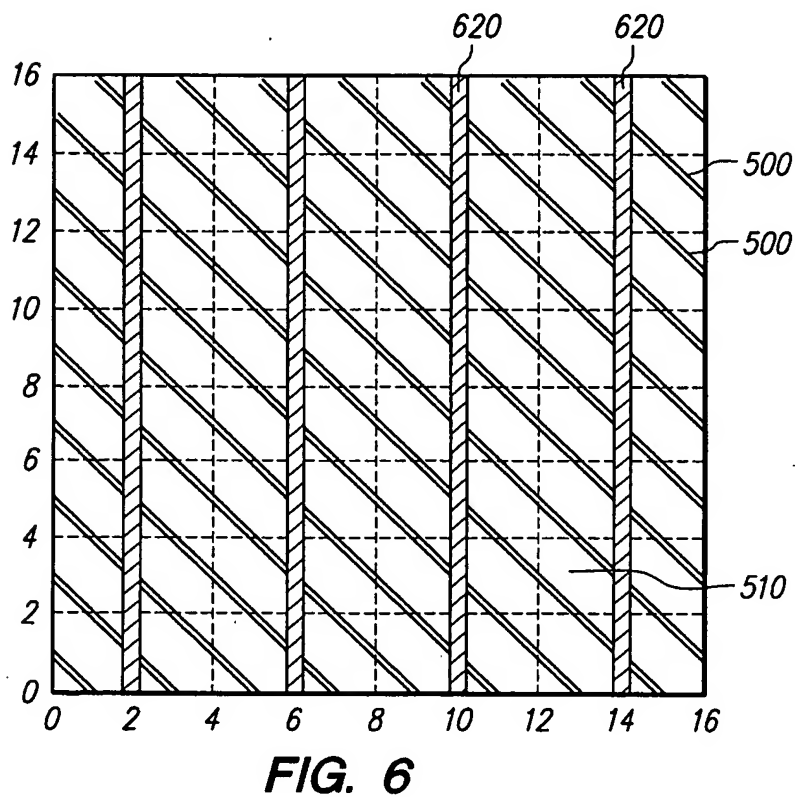
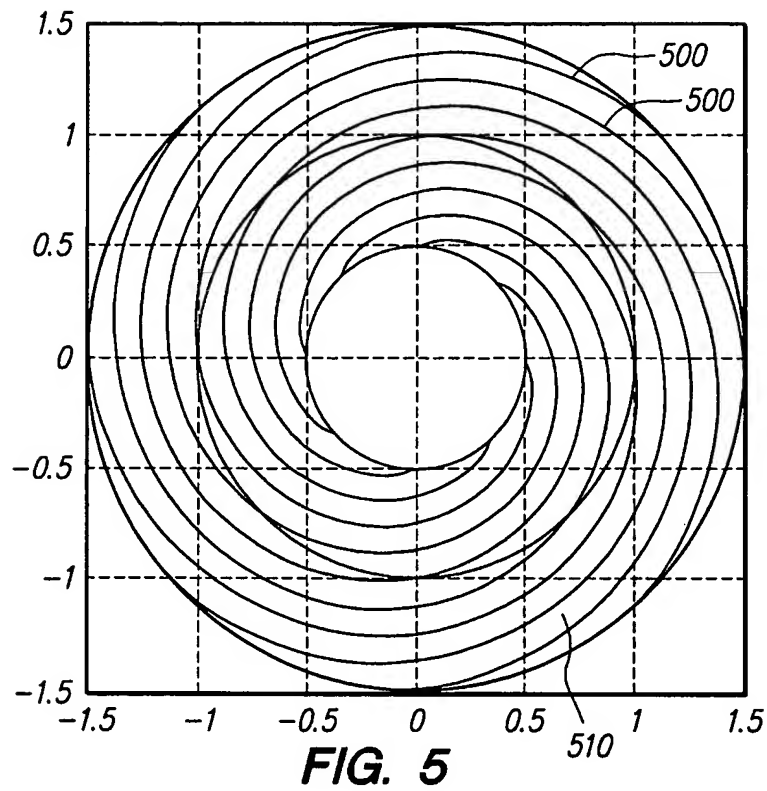


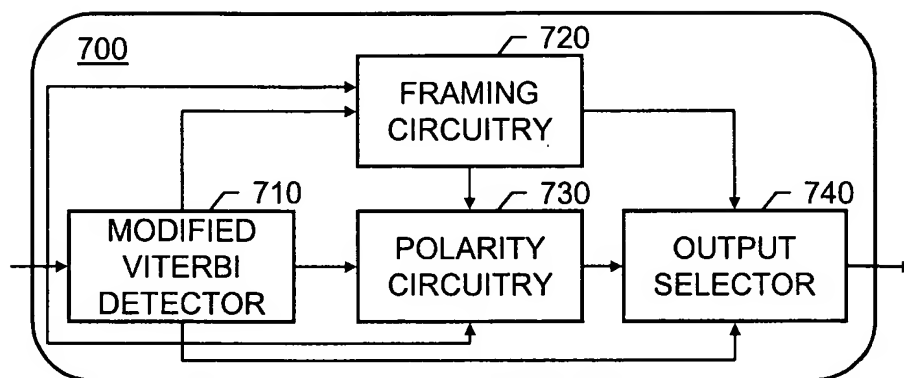
**FIG. 1**



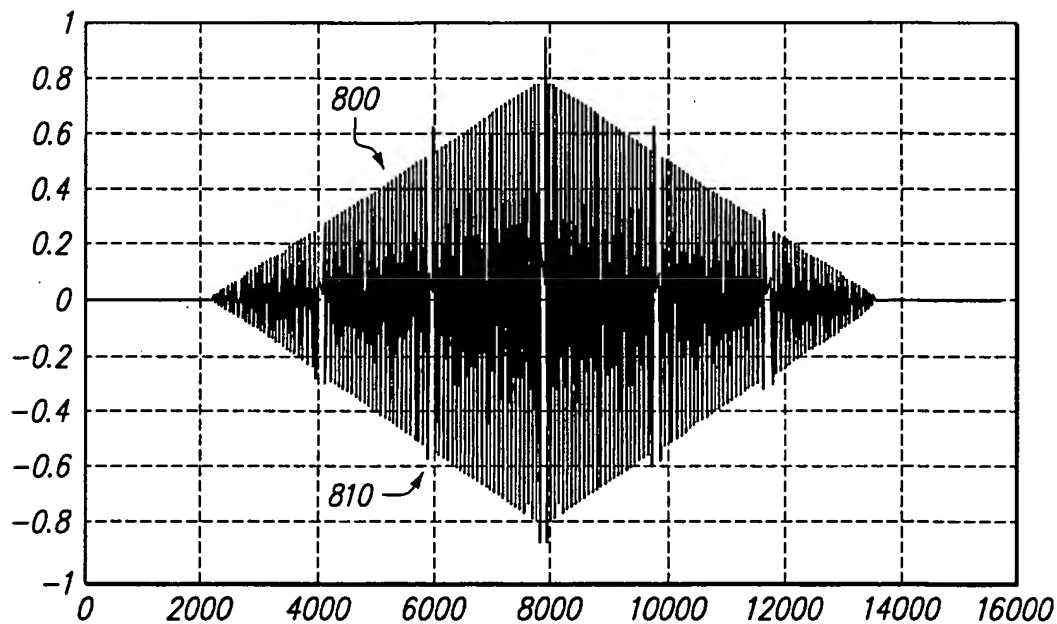
**FIG. 2**







**FIG. 7**

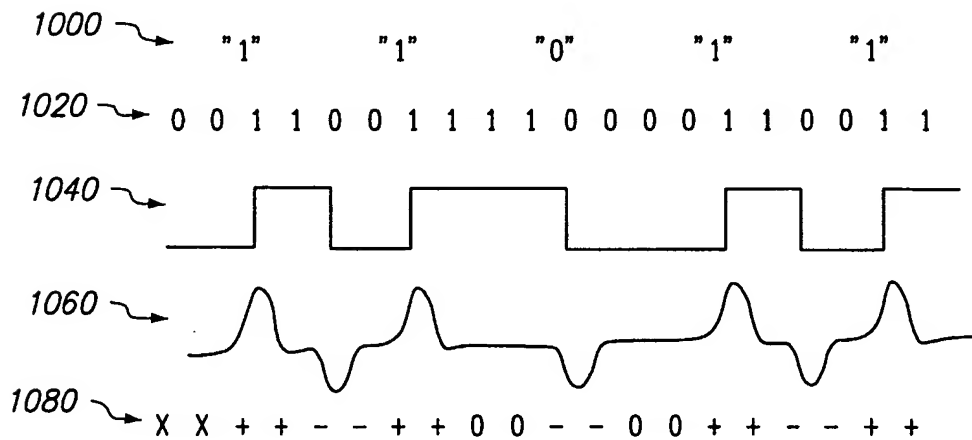


**FIG. 8**

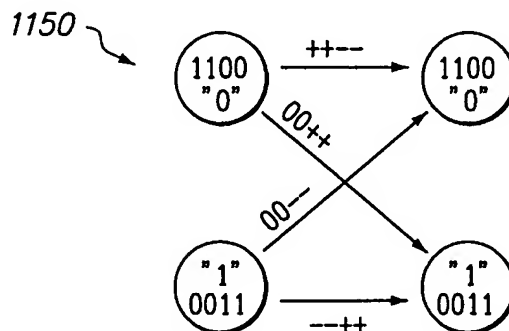
900 **FIG. 9**

Previous Symbol	Current Symbol	State Transitions	Output Peaks	Outputs for Each Input Symbol	
				Peak sampling	Shoulder sampling
"0"(1100)	"0"(1100)	1100->1100	X0-0 +0-0	1,0,-1,0	1,1,-1,-1
"0"(1100)	"1"(0011)	1100->0011	X0-0 00+0	0,0,1,0	0,0,1,1
"1"(0011)	"0"(1100)	0011->1100	X0+0 00-0	0,0,-1,0	0,0,-1,-1
"1"(0011)	"1"(0011)	0011->0011	X0+0 -0+0	-1,0,1,0	-1,-1,1,1

**FIG. 10**



**FIG. 11**



1200 ↘

**FIG. 12**

Phase 0		Phase 1		Phase 2		Phase 3	
output	accumulator	output	accumulator	output	accumulator	output	accumulator
0	672	1	1036	1	2074	1	1215
0	672	1	1036	1	2074	0	1215
0	672	0	1036	1	2074	1	1215
0	672	1	1036	1	2074	0	1215
0	672	1	1036	1	2074	0	1216
0	672	1	1036	1	2075	0	1216
0	672	1	1037	1	2076	1	1216
1	673	0	1037	0	2076	0	1216
1	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	0	1216
0	673	1	1037	1	2076	1	1216
0	673	0	1037	1	2077	1	1217
0	673	0	1037	1	2078	1	1217
0	673	0	1037	0	2078	0	1218
0	673	1	1037	1	2078	1	1218
0	673	1	1037	1	2078	0	1218
0	673	1	1037	1	2078	0	1218
0	673	1	1037	1	2078	1	1218
0	673	0	1037	1	2078	1	1218
0	674	0	1037	1	2079	1	1218
0	674	0	1038	1	2080	1	1218
1	675	0	1038	0	2080	0	1218
1	675	1	1038	1	2080	0	1218
0	675	0	1038	1	2080	1	1218
0	675	0	1038	1	2080	0	1218
0	675	1	1038	1	2080	0	1218
0	675	1	1038	1	2080	0	1219
0	675	1	1039	1	2081	0	1219
0	675	1	1039	1	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	1	1039	1	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	0	1039	1	2083	1	1219
0	676	0	1040	1	2085	1	1219

1300 ↘

**FIG. 13**

Phase 0		Phase 1		Phase 2		Phase 3	
output	accumulator	output	accumulator	output	accumulator	output	accumulator
1	672	0	1036	0	2074	0	1215
1	672	0	1036	0	2074	1	1215
1	672	1	1036	0	2074	0	1215
1	672	0	1036	0	2074	1	1215
1	672	0	1036	0	2074	1	1216
1	672	0	1036	0	2075	1	1216
1	672	0	1037	0	2076	0	1216
0	673	1	1037	1	2076	1	1216
0	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	1	1216
1	673	0	1037	0	2076	0	1216
1	673	1	1037	0	2077	0	1217
1	673	1	1037	0	2078	0	1217
1	673	1	1037	1	2078	1	1218
1	673	0	1037	0	2078	0	1218
1	673	0	1037	0	2078	1	1218
1	673	0	1037	0	2078	1	1218
1	673	0	1037	0	2078	0	1218
1	673	1	1037	0	2078	0	1218
1	674	1	1037	0	2079	0	1218
1	674	1	1038	0	2080	0	1218
0	675	1	1038	1	2080	1	1218
0	675	0	1038	0	2080	1	1218
1	675	1	1038	0	2080	0	1218
1	675	1	1038	0	2080	1	1218
1	675	0	1038	0	2080	1	1218
1	675	0	1038	0	2080	1	1219
1	675	0	1039	0	2081	1	1219
1	675	0	1039	0	2082	0	1219
0	676	1	1039	1	2082	1	1219
0	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	0	1039	0	2082	1	1219
1	676	0	1039	0	2082	0	1219
1	676	1	1039	0	2083	0	1219
1	676	1	1040	0	2085	0	1219
1	676	1	1040	1	2085	1	1219

**FIG. 14-1**

[illegible]



**FIG. 14-2**

44	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
45	_____XXXXXXXXXXXXXXXXXXXXX_____
46	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
47	_____XXXXXXXXXXXXXXXXXXXXX_____
48	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
49	_____XXXXXXXXXXXXXXXXXXXXX_____
50	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
51	_____XXXXXXXXXXXXXXXXXXXXX_____
52	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
53	_____XXXXXXXXXXXXXXXXXXXXX_____
54	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
55	_____XXXXXXXXXXXXXXXXXXXXX_____
56	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
57	_____XXXXXXXXXXXXXXXXXXXXX_____
58	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
59	_____XXXXXXXXXXXXXXXXXXXXX_____
60	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
61	_____XXXXXXXXXXXXXXXXXXXXX_____
62	_____X_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____XX_____
63	_____XXXXXXXXXXXXXXXXXXXXX_____
64	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____X_____
65	_____XXXXXXXXXXXXXXXXXXXXX_____
66	_____XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____
67	_____XXXXXXXXXXXXXXXXXXXXX_____
68	_____XXX
69	xxx_____
70	XXX_____
71	_____XXXXXXXXXXXXXXXXXXXXX_____
72	_____XXXXX_XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX_____

1500 ↘

**FIG. 15-1**

	64 sampling phases that cover a complete symbol duration with 16x over-sampling
1	_____
2	_____
3	_____
4	x _____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
5	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
6	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
7	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____ x _____
8	__ x _xxx_ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxx
9	xx
10	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
11	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
12	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
13	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
14	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
15	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
16	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
17	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
18	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
19	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
20	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
21	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
22	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
23	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
24	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
25	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
26	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
27	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
28	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
29	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
30	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
31	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
32	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
33	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
34	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
35	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
36	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
37	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
38	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xxxxxxxxxxxxxxxxxxxxxxxxxxxx
39	xxxx _____
40	_xxx _____
41	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
42	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____
43	_____ xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx _____

**FIG. 15-2**

[illegible]